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Promoting Interoperability in the)	
700 MHz Commercial Spectrum)	WT Docket No. 12-69
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Interoperability of Mobile User Equipment)	
Across Paired Commercial Spectrum Blocks in)	RM-11592 (Terminated)
the 700 MHz Band)	
)	

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TABLE OF CONTENTS

SUMMARY	ii
I. Background.....	2
II. Discussion	5
A. Interoperability is Necessary in Order to Facilitate Competitive Offerings Involving Affordable, State-of-the-Art Mobile Devices and Associated Services	5
B. The Impact of Lack of Interoperability Upon Competition is That It May Be forever Denied	8
C. There Are No Meaningful, Legitimate Engineering Bases for Not Requiring Interoperability.....	12
D. While Voluntary Industry Solutions are Preferable to Regulation, Considerable Efforts Toward That Goal Have Not Met with Success, and the Commission Should Not Further Withhold Action Hoping for Such Agreement	14
E. While There are Efforts that the Commission Can and Should Take to Facilitate Interoperability, There are No Technical Issues that Prevent Voluntary Adoption of Interoperability.....	16
F. It is Critical That the Commission Adopt at Least Lower Band Interoperability Rules This Year and, While Data on Interoperability on the Entire Band Should Be Accumulated, and Hopefully Ruled Upon, in This Proceeding, a Ruling on the Entire Band is Not Necessary This Year	17
G. Timeframe for Interoperability Implementation Must Be Less Than One Year.....	18
H. There is No Question But That the Commission Has the Legal Authority to Implement Interoperability.....	18
III. Conclusion	19

SUMMARY

King Street Wireless, L.P. hereby urges the Commission to promptly adopt interoperability rules for the 700 MHz band comparable to those that have developed for virtually every other wireless technology. The Commission has previously espoused the value of interoperability for PCS and Cellular technologies, and there is nothing in the record to justify treating 700 MHz any differently. The benefits of interoperability to consumers are manifold, but generally stem from the competitive parity that interoperability would promote. Absent such rules, and the corresponding increase of competition in the marketplace, consumers would almost certainly be subjected to higher prices and reduced variety of product offerings.

There is nothing in the record that substantiates any claim that interoperability within a unified 700 MHz band class would cause any significant interference that couldn't be easily mitigated. Quite the opposite; there is an independent study in the record that tends to show that no harmful interference would result from such a policy. The undifferentiated fears of opponents to interoperability are simply insufficient to justify not adopting a policy that has the potential to be a boon to both licensees and consumers.

It is essential that the Commission act on 700 MHz interoperability in a timely fashion, i.e. within this calendar year. Absent the near-term promulgation of interoperability rules and a short-term implementation period, it will almost certainly become impossible for smaller wireless carriers, which largely operate in rural and under-served areas, to compete with the two largest carriers. This would of course frustrate the Commission's goals of promoting efficient use of spectrum and vibrant competition in the marketplace.

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

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COMMENTS OF KING STREET WIRELESS, L.P.

King Street Wireless, L.P. (“King Street”) hereby submits its comments (“Comments”) in response to the Commission’s *Notice of Proposed Rulemaking*¹ in the captioned proceeding. By these Comments, King Street demonstrates that interoperability – which has been either expressly or explicitly required for all sophisticated mobile services, other than 700 MHz, that have been licensed since the advent of cellular thirty years ago – should also be required in the 700 MHz Band.² Such interoperability is necessary in order to permit the public to access the benefits of competition in the 700 MHz Band. Moreover, and as shown herein, such interoperability can be achieved without presenting any meaningful interference concerns that cannot be easily and promptly remedied.

¹ *Notice of Proposed Rulemaking* in WT Docket No. 12-69, 77 Fed Reg 19575, April 2, 2012 (the “NPRM”).

² See NPRM, at para. 2, where the Commission acknowledges that the 700 MHz band “is the only non-interoperable commercial mobile service band.”

I. Background

Long before there was any allocation of 700 MHz spectrum, the Commission recognized the need for interoperability. In certain instances, the Commission expressly mandated it.³ In others, it stressed the importance of interoperability and explained that if it was not adopted by voluntary industry action, the Commission was prepared to become more proactive and require it.⁴

At the very outset of the NPRM the Commission properly reminded all that:

The Communications Act directs the Commission to, among other things, promote the widest possible deployment of communications services, ensure the most efficient use of spectrum, and protect and promote vibrant competition in the marketplace. On each occasion where the Commission has made available new spectrum for mobile telephony and/or broadband, it has strived to meet these important goals.

NPRM, at para. 1. The Commission's succinct pronouncement on this issue did not extend prior statutory authority or reviewing court pronouncements, or in any way attempt to create new law. Rather, it merely reflected authority expressly provided in Titles 1 and 3 of the Communications Act, and recognized and endorsed by the Supreme Court. See, e.g. *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 217 (1943), where the Court properly noted that

³ Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular communications systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, CC Docket No. 79-318, *Report & Order*, 86 FCC 2d 469, 482 (1981) (*Cellular Report and Order*). The Commission adopted band-wide interoperability requirements for cellular service, in order to "insure full coverage in all markets and compatibility on a nationwide basis". *Id.*

⁴ Amendment of the commission's Rules to Establish New Personal Communications Services, RM-7140, RM-7175, RM-7618, GEN Docket No. 90-314, *Memorandum Opinion and Order*, 9 FCC Rcd 4957, 5021-22¶¶ 163-64 (1994) (*Broadband PCS Memorandum Opinion and Order*). There the Commission explained that "[t]he availability of interoperability standards will deliver important benefits to consumers and help achieve our objectives of universality, competitive delivery of PCS, that includes the ability of consumers to switch between PCS systems at low cost, and competitive markets for PCS equipment" and that if PCS technology did not develop in a manner to accommodate roaming and interoperability, it might consider "what actions the Commission may take to facilitate the more rapid development of appropriate standards." *Id.*

The avowed aim of the Communications Act of 1934 was to secure the maximum benefits of radio to all the people of the United States. To that end Congress endowed the Communications Commission with comprehensive powers to promote and realize the vast potentialities of radio. Section 303(g) provides that the Commission shall ‘generally encourage the larger and more effective use of radio in the public interest’; subsection (i) gives the Commission specific ‘authority to make special regulations applicable to radio stations engaged in chain broadcasting’; and subsection (r) empowers it to adopt ‘such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act’.

Nat’l Broad. Co. v. United States, 319 U.S. 190, 217 (1943). The Commission’s NPRM is only the latest, but one of its most important, efforts to comply with statutory mandates.

Notwithstanding the above clear directives, shortly after completion of the 700 MHz auction (Auction No. 73) multiple 700 MHz licensees notified the Commission that post-auction developments were causing interoperability to become largely non-existent in the 700 MHz Band.⁵ Thus, on September 30, 2009, the 700 MHz Block A Good Faith Purchasers Alliance (the “Alliance”)⁶ submitted a request that the Commission initiate a rulemaking to ensure that the 700 MHz Band would be interoperable (the “Petition”).⁷ Among other things, the Alliance demonstrated that without interoperability there would be no competition in the provision of mobile broadband within the 700 MHz Band (where mobile broadband is being developed most extensively), and that interoperability could be made available without creating any meaningful interference issues. The vast majority of those entities who commented on the Petition agreed

⁵ Thus, this is not something that the Alliance (defined below) or others could have reasonably foreseen. Nor can those who created the problem reasonably claim that it would now be somehow unfair to remedy it.

⁶ The Alliance consists of C-Spire (formerly Cell South), Cavalier Wireless, Continuum 700, and King Street.

⁷ *Petition For Rulemaking Regarding the Need for 700 MHz Mobile Equipment To Be Capable of operating on All Paired Commercial 700 MHz Frequency Blocks*, submitted by the Alliance on September 30, 2009, initiating RM-11592.

with the Alliance. Only AT&T Wireless, Inc. (“AT&T”), Verizon Wireless (“Verizon Wireless”), (collectively, the “Big Two”) and their largest vendors, opposed interoperability.⁸

As the Commission properly observed in the NPRM, the areas of disagreement over this issue are limited. There is no question regarding the benefits that would come from interoperability. As the Commission recognized, “[T]here is express agreement, however, that a unified band class across the Lower 700 MHz band has the potential to yield significant benefits for all licensees.” NPRM, at para. 4. And, to the extent that there is disagreement over the technical feasibility of interoperability, the Commission properly characterized it when it explained that

At its core, the dispute is whether a unified band class would result in harmful interference to Lower 700 MHz licensees in the B and C Blocks and whether, if harmful interference exists, it reasonably can be mitigated.

NPRM, at para. 3.⁹ The Commission’s accurate assessment of what is separating parties here apparently stems in part from the Commission’s understanding that: “Entities involved in the creation of Band Class 17 during 3GPP proceedings assert that it was necessary to create a separate band class for Lower 700 MHz B and C Block licenses in order to avoid interference issues from DTV in Channel 51 and high power operations in the E Block.” NPRM, at para. 10.

Thus, in the NPRM the Commission did an admirable job of setting the stage for discussion in this proceeding: there is no genuine dispute regarding the benefits of interoperability; opponents of it need to demonstrate that interoperability would create

⁸ See generally those comments submitted in RM-11592.

⁹ Band Class 17 will serve only Blocks B and C, while Band Class 12 will serve Blocks A, B and C. AT&T, the primary sponsor of Band Class 17 has no appreciable Block A spectrum, and thus is unconcerned about Block A licensees being left in a band wasteland due to the creation of Band Class 17. Verizon, another opponent of interoperability, does hold A Block spectrum. Yet that holding is not sufficient to offset the advantages that non-interoperability holds for it, given that Verizon has alternated by publicly proclaiming that it wants to either warehouse or sell such spectrum.

significant technical issues within the 700 MHz Band; and if there are technical issues stemming from interoperability, opponents must demonstrate that the cost of mitigating such issues are not outweighed by the many benefits of adopting such a consumer-friendly policy.

II. Discussion

The Commission invited comment on a number of different specific issues involving both the need for interoperability and the costs associated with it. The principal issues presented in the NPRM are addressed below.

A. Interoperability is Necessary in Order to Facilitate Competitive Offerings Involving Affordable, State-of-the-Art Mobile Devices and Associated Services

In the NPRM, at para. 21, the Commission requested that comments regarding whether there is a need for interoperability be provided into the formal record of this proceeding. There is no question but that interoperability is needed, based both upon the overall wireless communications industry situation and upon the facts surrounding the 700 MHz Band. Insofar as the overall industry is concerned, the Commission's own prior pronouncements aptly demonstrate this: the Commission adopted band-wide interoperability requirements for cellular service, in order to "insure full coverage in all markets and compatibility on a nationwide basis". 86 FCC 2d at 482. It also agreed that "[t]he availability of interoperability standards will deliver important benefits to consumers and help achieve our objectives of universality, competitive delivery of PCS, that includes the ability of consumers to switch between PCS systems at low cost, and competitive markets for PCS equipment." 9 FCC Rcd at 163-164.

As the Commission well knows, if it wishes to apply different standards to different classes of licensees, "it must explain the relevance of those differences to the purposes of the Federal Communications Act." *See Melody Music v FCC*, 345 F.2d 730, 733 (D.C. Cir. 1965).

Here, there are no such relevant differences. So, having already recognized the benefits of interoperability in countless other spectrum proceedings, the burden clearly rests with those who would argue that 700 MHz should be the exception to the rule. Moreover, given that the Commission will auction additional spectrum for mobile broadband, and likely include there an interoperability obligation, it would be most difficult for the Commission to do so, but to treat interoperability in a disparate manner here.

The competitive landscape, both in the entire wireless industry and in the 700 MHz Band, add further justification for the need for interoperability. Insofar as the communication industry is concerned, the simple fact is that we can no longer even claim to have “effective competition” in wireless. The Commission recognized this in 2010,¹⁰ again in 2011,¹¹ and almost certainly will in 2012, especially given its actions in the AT&T/T-Mobile proceeding¹² and the record in its Sixteenth Wireless Competition Report proceeding.¹³

The Commission is hardly alone among federal oversight agencies in understanding the dire state of competition that is evolving. The U.S. Department of Justice (“Justice”) found existing concentration to be too high to survive the proposed AT&T/T-Mobile merger, noting that

As a result, concentration will increase in many local markets and competition likely will be substantially lessened across the nation, resulting in higher prices, diminished investment, and less product variety and innovation than would exist without the merger, both with respect to services provided over today’s mobile wireless

¹⁰ See *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fourteenth Report, 25 FCC Rcd 11407 ¶ 3 (2010) (“*Fourteenth Wireless Competition Report*”).

¹¹ See *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, WT Docket No. 10-133, ¶ 2 (June 27, 2011) (“*Fifteenth Wireless Competition Report*”).

¹² *Application of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, Staff Analysis and Findings, WT Docket No. 11-65, ¶ 37 (rel. Nov. 29, 2011).

¹³ See comments submitted in WT Docket 11-186.

devices, as well as future innovative devices that have yet to be developed.¹⁴

In addition, the Government Accountability Office has reported that, in a recent three year period alone, subscriber market share of the Big Two increased by an eye-opening 20%.¹⁵

In the 700 MHz Band, concentration is even worse, if that is possible. Verizon and AT&T absolutely dominate the 700 MHz Band! Together, they obtained over 80% of the spectrum sold in Auction No. 73.¹⁶ On a “value basis”, they paid over 90% of all revenues generated in Auction No. 73.¹⁷ Only shortly before that, AT&T acquired the vast majority of the previously licensed 700 MHz Lower Band by virtue of its acquisition of several licensees (or licenses) including, most notably, Aloha Partners.¹⁸ So there is no question regarding the dominance that those two carriers hold in 700 MHz, or the correspondingly very limited position of all other licensees combined.

In this context, vendors have logically devoted primary effort to addressing the needs of larger carriers (such as AT&T, the principal proponent of Band Class 17) and have largely ignored those of smaller carriers (who, as A Block licensees, need to use Band Class 12). What this means is that the available phones go first to the larger carriers and the smaller carriers are left to wait for access to any phones.¹⁹

¹⁴ *United States of America v. AT&T Inc.*, 2011 WL 3823252 (D.D.C.)

¹⁵ Governmental Accountability Office, *Telecommunications: Enhanced Data Collection Could Help FCC Better Competition in the Wireless Industry*, Report to Congress, GAO – 10-779, at 13 (July 2010).

¹⁶ See *Reply Comments of 700 MHz Block A Good Faith Purchasers Alliance*, submitted in RM-11592, on April 30, 2010.

¹⁷ *Id.*

¹⁸ *Memorandum Opinion & Order, In the Matter of Application of Aloha Spectrum Holdings Co. LLC (Assignor) & AT&T Mobility II LLC (Assignee) Seeking FCC Consent for Assignment of Licenses & Authorizations*, 23 FCC Rcd 2234 (2008).

¹⁹ Until recently, the issue of access to equipment, presented in the context of exclusive equipment contracts, was the focus of a separate proceeding (RM-11497). That proceeding has now been closed. See Letter of May 11, 2012, to Marlene Dortch from Steven K Berry. Accordingly, the impact of delayed or denied access to equipment should be more thoroughly considered in the context of a need for interoperability.

When the smaller carriers do get phones, they will not have available to them all of the “cutting edge” phones. The issue of which carriers can offer the most sought-after phones is particularly significant given that independent research demonstrates that 42% of subscribers select their carrier based upon handset availability.²⁰ Moreover, because of the lack of any meaningful economies of scale, they will pay more for those phones.²¹ So, in essence, without interoperability, smaller carriers face a “triple whammy”: They will not get phones as quickly as the largest carriers; when they do get them, they won’t have access to the most sought-after ones; and they will pay more for phones that they do get. These disadvantages cripple smaller carriers and severely limit to consumers the many benefits of competition that otherwise would be available to them.

Recent developments demonstrate vividly the perils that lack of competition present to consumers. For example, Verizon Wireless recently announced that it had decided to eliminate/reduce various large bundle offerings.²² So it appears that at least some of the Justice Department’s concerns about dwindling competition are far more than economic theory: They are already coming true.

B. The Impact of Lack of Interoperability Upon Competition is That It May Be Forever Denied

As the Alliance advised the Commission in its Petition:

²⁰ See Comments of Cincinnati Bell submitted on February 2, 2009 in RM-11497, citing its internal study showing that 42% of prospective subscribers focused on handset availability.

²¹ Reasonable persons may differ in their beliefs regarding the extent to which economies of scale reduce costs, but there can be no genuine argument regarding whether there is a cost reduction. See, e.g. Daniel F. Spulber, Christopher S. Yoo, Rethinking Broadband Internet Access, 22 Harv. J.L. & Tech. 1, 21 (2008), explaining succinctly the concept of economies of scale and the significant role it plays in production costs. “When average cost is declining, producers with larger volumes are able to produce at lower cost, which in turn allows them to underprice their competitors. The lower price allows them to capture a still larger share of the market, which causes the cost advantage enjoyed by the largest player to widen until all of the other producers are driven from the market.”

²² Roger Yu, *Verizon Wireless to end unlimited data plan*, USA Today (May 16, 2012), <http://www.usatoday.com/tech/news/story/2012-05-16/verizon-wireless-unlimited-data/55028254/1>.

A drama is playing out in the 700 MHz Band. And if the Commission does not take the stage before the final act is over, the curtain will come down on wireless competition.

Alliance Comments in RM-11592, at iv. The Alliance's comments remain true today. This entire dispute is before the Commission now only because, almost immediately after the completion of Auction No. 73, the two largest carriers established proprietary, self-serving band classes. An informed third party equipment vendor that was actively involved in the 3GPP process²³ promptly and accurately explained to the 3GPP that there was no justification for that action, other than to possibly "add to market fragmentation."²⁴

Without interoperability, small carriers seeking to provide service over their 700 MHz facilities, oftentimes to small and rural markets, will be severely hampered in several ways. First, Band Class 12 equipment will be much more difficult to obtain, because vendors reasonably seek first to serve the demands of their largest possible customers, where volume (and profitability) is greatest (See Section IIA, *supra*). Only after their largest carrier customers are served will their attention be re-directed to smaller carriers. Second, when (if at all) attention is re-directed to include smaller carriers, the equipment will cost more. This is largely due simply to the inescapable economies of scale associated with the production of high-technology customer equipment for wireless as discussed in n. 21, *supra*. It is also due to the fact that there will be less competition among vendors of Band Class 12 equipment because, while certain vendors may well provide it, (in)action to date strongly suggests that others will not.

²³ To be clear, the 3GPP process is a time-consuming one to which only the largest, best funded companies have practical access. Thus, the Big Two cannot reasonably be heard to complain that small operators should have been actively involved in 3GPP activities, regardless of where in the world they took place. Instead, the Commission itself should review this situation to assure that the largest carriers and vendors are not using 3GPP as a means to side-step the Commission's allocation and policy decisions.

²⁴ See Discussion Draft, Ericsson, "On the introduction of Band 15," (Agenda Item 6.1.2.2), 3GPP TSG RAN WG4 (Radio) Meeting #47bis, June 16-21, 2008.

There is another reason that lack of interoperability will severely hinder small carriers' ability to provide service to rural areas: Without interoperability, there will be no nationwide roaming ability for Band Class 12 units. The reason for this is straightforward: without interoperability, Band Class 12 units will not be able to roam over systems designed for Band Class 17. Thus, the "technical incompatibility" loophole to avoid roaming obligations will be available to Band Class 17 carriers.²⁵ So, "Greenfield" builds, especially by licensees who do not currently have large customer bases in any market, will make no economic sense. This is because a Band Class 12 carrier would be at a severe disadvantage to a nationwide carrier seeking the same customer. One could offer nationwide service, and the other could not. (Interoperability would, through roaming, permit competitive offerings of nationwide service.) For many, if not most, prospective subscribers, this alone could cause them to subscribe to a larger carrier.

There is yet another, over-arching reason that interoperability is required now: As explained above, without interoperability many smaller carriers may not be able to remain in business. Without them, there will be an overall dearth of operators, and prospective subscribers may have no option other than the Big Two. The result of this will be precisely what Justice sought to avoid by not approving the AT&T /T-Mobile merger: higher prices; diminished investment; and less product variety and innovation. See Report cited in n. 14, *supra*.

To summarize, the disadvantages to which customers of smaller carriers would be subjected to in the absence of interoperability include the following:

- a. Delayed access to Band Class 12 equipment (while vendors focus first on larger carriers);

²⁵ See 47 C.F.R. § 20.12(e).

- b. Higher costs for equipment, due to fewer economies of scale and less competition among vendors;
- c. Less access to the most sought-after devices; and
- d. Lack of roaming capability, which reduces the number of expected home subscribers.

The above problems, if not cured, likely will combine to drive small carriers out of the business, either sooner or later. And, given that larger carriers most often focus on their larger, more dense and more profitable markets, if smaller carriers cannot operate in the smaller, rural areas, it follows that there may be no service there at all, at least not in the near-term. This will be problematic not only for potential customers and for commercial licensees in rural markets, but also for public safety users who may desire to roam on commercial systems in those areas.

This was prominently discussed in the Congressional Research Service report released just last week (the “CRS Report”).²⁶ There it was stated that

In its National Broadband Plan, the FCC indicated that it wanted to make commercial networks in the 700 MHz band available for public safety use and requested that Congress confirm the FCC’s authority to act. The Middle Class Tax Relief and Job Creation Act of 2012 provides the FCC with statutory authority to establish rules in the public interest to improve the ability of public safety networks to roam on commercial space and to gain priority access.

CRS Report, at 19 (internal citations omitted). The CRS Report also appropriately noted that on the issue of interoperability, Band Class 12 users and Public Safety users (Band Class 14) are on the same footing, stating

As is the case for Band Class 12, the costs of developing and producing the chipsets, software, and other components for equipment operating on Band Class 14 are likely to be spread

²⁶ Linda K Moore, *The First Responder Network and Next-Generation Communications for Public Safety: Issues for Congress*, Congressional Research Service #R42543 (May 23, 2012).

across a relatively smaller customer base, increasing marginal costs and the prices paid by users. Because the band classes are not interoperable across the 700 MHz band, public safety users are likely to incur not only higher costs for equipment to operate within their assigned frequencies but also higher for roaming and priority access on commercial channels.

CRS Report, at 22. Thus, the CRS Report properly concluded that “[many] believe that full-spectrum interoperability will, in the long-term, maximize the benefits of LTE and LTE Advanced technologies deployed on the 700 MHz band.” CRS Report, at 22.

C. There Are No Meaningful, Legitimate Engineering Bases for Not Requiring Interoperability

Those who have an economic interest in forestalling interoperability, and therefore competition in the 700 MHz Band, have claimed that there are certain not-clearly-explained engineering bases for not implementing interoperability. As discussed below, these lines of argument are akin to the many outcome-determinative arguments presented by applicants in the AT&T/T-Mobile proceeding, which the Commission properly disregarded as being unsupported and inaccurate. Chief among these is the claim that entities operating on Block B or C in Band Class 12 would be susceptible to meaningful and incurable interference that would not exist if they were operating on Band Class 17. More specifically, two primary professed concerns were proffered regarding interference that would result from implementation of interoperability: (1) reverse intermodulation interference from adjacent DTV Channel 51 operations and (2) blocking interference from neighboring high-powered operations in the Lower 700 MHz E Block. See NPRM at 31; *AT&T Reply Comments* in WT Docket No. 11-18, RM-11592, at 10; and Motorola

comments on TS 36.11: Lower 700 MHz Band 15, “3GPP TSG-RAN, WG4 meeting #47, Kansas City, MO, USA (April 2008).²⁷

The chief proponents of the above professed concerns have presented precious little support for their contentions. In contrast, King Street and other proponents of interoperability have participated in the sponsoring a technical study, which was recently included in the record in this proceeding and that has addressed directly this issue. The study, which long-ago was presented to the Commission in an analytical slide format,²⁸ involved real world testing in Atlanta, GA, conducted largely in the Fall of 2011 (the “Atlanta Study”).²⁹ It demonstrated that there was no basis for either of the technical arguments purportedly undermining interoperability. Not unexpectedly, AT&T refused to acknowledge fully the legitimacy of the report’s findings. Regardless, the Atlanta testing resulted in at least two findings that are directly on point in responding to Commission inquiries in the NPRM:

- 1) The use of Band Class 12 devices by AT&T to serve customers in their Lower B and C Blocks would pose no threat to their customer experience.
- 2) Lower A Block deployment would certainly be aided by conditions imposed on Channel 51 and the Lower E Block, but such conditions do not impact Lower B and C Block device performance and are not an interoperability prerequisite.

Among the criticisms that were presented was the fact that, at the time of testing, no Band Class 12 devices were employed and, without them, questions existed regarding exactly what the tests showed. In response, the test sponsors have properly noted that (1) as there were then no

²⁷ See also the Commission recognition in the NPRM that “Motorola does not provide evidence showing the circumstances that would produce condition suitable to create reverse intermodulation interference from Channel 51. NPRM, at para. 34.

²⁸ See letter of November 25, 2011, in WT Docket No. 11-18, RM-11592, from counsel for Vulcan Wireless.

²⁹ The study was formally entered into the record in this proceeding on May 29, 2012, by several entities, including King Street.

commercial Band Class 12 devices available, such devices could not be included in the testing; (2) given the availability and use of close substitutes for Band Class 12 equipment, its (then) lack of availability there was not significant; and (3) the Atlanta test presented the only hard data on this issue, with anti-interoperability advocates having, as of yet, provided no useful data. King Street here echoes each of those positions. On the critical issue (NPRM, at para. 3) of whether use of Band Class 12 rather than Band Class 17 would increase the risk of interference, the study confirmed that which the Commission recognized in the NPRM, i.e., that:

We observe, however, that a transition from Band Class 17 to Band Class 12 does not necessitate a change in base station filtering. Operators deploying networks in the Lower 700 MHz B and C Blocks can continue to filter base station receivers as they would for Band Class 17, and thus interference from Channel 51 to B and C Block base stations is the same regardless of whether Band Class 12 devices or Band Class 17 devices are used.

NPRM, at para. 32. Therefore, both statements by the Commission and independent research refute the position that use of Band Class 12 equipment would create interference that would support non-adoption of interoperability.

D. While Voluntary Industry Solutions are Preferable to Regulation, Considerable Efforts Toward That Goal Have Not Met with Success, and the Commission Should Not Further Withhold Action Hoping for Such Agreement

It is important at this point to place into perspective the entire issue of interoperability regulation. The contemplated regulation here at issue is not an extreme or unusual remedy. In fact, it is not different in kind than most of the vast myriad of equipment regulation currently in force at the Commission.³⁰ And, without denigrating the technical and political importance of

³⁰ This includes general type acceptance regulation; E911 regulation; hearing compatibility; technical specifications and any number of other regulations.

many other regulations, in a very real way interoperability would serve a far greater public interest by facilitating competition in the 700 MHz band.

It is in this context that King Street, along with other small carriers and working with the assistance of a major wireless association, initiated last year an effort to both reduce differences in the public positions of the various parties in this proceeding and to hasten the time when interoperability would be in effect. Unfortunately, those efforts have not been productive even as they remain ongoing. And they have been ongoing, in one manner or another, virtually since completion of Auction No. 73 four years ago.

The simple fact is that the longer it takes to implement interoperability, the better the competitive position of the largest two carriers. This is because a combination of some or all of the disadvantages noted in Section IIB, *supra*, will significantly weaken the operational capabilities of their competitors. And this certainly appears to be why they have rejected interoperability to date, and why they can be expected to either continue to do so or to set unrealistic conditions or timeframes for implementation of interoperability. It is also why it would serve no purpose for the Commission to wait further prior to mandating interoperability, and why King Street agrees with the following position of Commissioner Clyburn and the Alliance:

The Alliance agrees with Commissioner Clyburn that there are times when it is not sufficient for the Commission merely to ‘encourage’ large carriers such as AT&T and Verizon to take actions that will promote the Commission’s policies regarding ‘opportunity for new entrants and smaller wireless service providers to acquire assets and provide competitive alternatives to larger carriers.’ FCC News Release, *Statement of Commissioner Mignon L. Clyburn on the Wireless Telecommunications Bureau’s Consent to the Transfer of Licenses from Verizon Wireless to Atlantic Tele-Net* (rel. Apr. 20, 2010), at 1. The Commission must intervene to ensure that these opportunities are not squandered in the 700 MHz Band.

See *Reply Comments of 700 MHz Block A Good Faith Purchasers Alliance*, at n. 9, submitted in RM-11592, on April 30, 2010. Given the almost-certain prospect of continued delay tactics from the Big Two, and the significant benefits of interoperability relating to competition, the Commission should seize this opportunity to establish a comprehensive interoperability policy for the 700 MHz band.

E. While There are Efforts that the Commission Can and Should Take to Facilitate Interoperability, There are No Technical Issues that Prevent Voluntary Adoption of Interoperability

In the NPRM, at para. 42, the Commission responsibly asked what it can do to facilitate voluntary adoption of interoperability. It is first necessary to put that question into perspective: Currently it is only the financial interests of the Big Two that prevent voluntary interoperability. As Ericsson realized when Band Class 17 was first proposed, the primary benefit of Band Class 17 is only “market fragmentation,” not interference protection. See n. 24, *supra*. The study cited in Section IIC, *supra*, shows this is still the case.

Notwithstanding the above, and without slowing this proceeding, there are at least two efforts the Commission can, and should, take to facilitate interoperability (or, more accurately, efficient use of 700 MHz spectrum). First, it should modify the power rules in the E Block, so that they parallel those in the D Block.³¹ It should also revise Channel 51 protection rules, in at least two ways. First, the size of the “preclusion zone” should be reconsidered and reduced considerably. Currently, it is based on the need to provide protection between two high powered transmitters. That makes sense for broadcast facilities. But it makes little sense where, as is here the case, one of the transmitters operates at very low power. The Commission should also

³¹ See *ex parte* submission of U.S. Cellular in WT No. 12-69, WT No. 12-45, AU No 12-25, and CC No. 96-45, where it has already requested such action.

promulgate rules or guidelines for settling possible disputes with broadcasters regarding Channel 51 protection. Currently, rules governing settlements are far from clear and such absence of clarity is a major deterrent to voluntary settlements and relocations.

King Street stresses that, while Commission action as set forth in this section is welcome, it is not a necessary prerequisite, or substitute, for interoperability. And interoperability should not be delayed while those issues are addressed.

- F. It is Critical That the Commission Adopt at Least Lower Band Interoperability Rules This Year and, While Data on Interoperability on the Entire Band Should Be Accumulated, and Hopefully Ruled Upon in This Proceeding, a Ruling on the Entire Band is Not Necessary This Year

King Street submits that what is absolutely critical here is that the Commission adopt interoperability rules this year and that such rules become effective in the next calendar year. Would that not transpire, it is unlikely that interoperability relief would come quickly enough to provide the relief that is needed in order for there ever to be meaningful competition in the 700 MHz Band.

King Street further submits that, sooner or later, interoperability rules should extend throughout both the Upper Band and the Lower Band. Yet, King Street appreciates that interoperability spanning both the Upper Band and the Lower Band could well present issues that are not present with Lower Band only interoperability. Therefore, King Street urges the Commission not to delay beyond the end of this year a decision on Lower Band interoperability, and rule upon both Upper Band and Lower Band interoperability only to the extent that can be done without delaying the process.

G. Timeframe for Interoperability Implementation Must Be Less Than One Year

The spectrum here at issue was auctioned in the early Spring of 2008 – i.e., more than four years ago. After the auction, the Big Two first argued for the new and separate band classes that have necessitated this proceeding. Subsequently, the Alliance submitted its Petition. (See n. 7, *supra*.) Nearly three additional years have passed since that submission. Throughout that entire timeframe, interoperability opponents have been on notice that the Commission may well expressly require it. Thus, they should be prepared to adopt quickly.

It is in this context that the mention of a “reasonable transition period of no longer than two years” (NPRM, at para. 50) is far longer than is either needed or acceptable to provide consumers with the benefit of competition. Towards this end, the grandfathering of Band Class 17 devices would likely not be needed but, if so, would present no problem to King Street. For all of these reasons, King Street urges the Commission to issue a ruling this year that requires interoperability, and have that requirement fully implemented in the next calendar year.

H. There is No Question But That the Commission Has the Legal Authority to Implement Interoperability.

The Commission’s authority to require interoperability is really beyond question. The Commission’s summary discussion in the NPRM more than amply demonstrates that to be the case. See NPRM, at paras. 56-59, demonstrating support from Titles 1, 2 and 3 of the Act. See also the discussion in Section I, *supra*. Collectively, they further demonstrate that the Commission has more than ample authority to require interoperability. The arguments to the contrary of the Big Two are little more than desperate efforts to head off what they must understand as being inevitable. They should therefore be summarily dismissed.

III. Conclusion

As set forth more fully above, interoperability within the 700 MHz Band is absolutely essential to permit any semblance of competitive balance among mobile service providers. Furthermore, there are no genuine interference issues that would be caused by interoperability that could not be easily mitigated. Finally, time is of the essence; if the Commission does not act on these matters within the year, the opportunity to affect competition and thereby benefit consumers will be lost.

For the foregoing reasons, King Street requests that the Commission mandate interoperability within the 700 MHz band no later than this calendar year.

Respectfully submitted,

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